

Product datasheet for MR218100

Pla2g2f (NM_012045) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Pla2g2f (NM_012045) Mouse Tagged ORF Clone
Tag: Myc-DDK
Symbol: Pla2g2f
Synonyms: GIIFsPLA2; sPLA2-IIF
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >MR218100 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCAGATGGGGCACAGGCCAACCCAAAGGGTTCAGGAAGAAGGCGCTGGTTAAACACTCCACTGGAC
 GGAAGAGCCCAAGCCTCAGGGCCTCTCCCTCTAAAACCTCAGGTCCAGCCTGGGTATGAAGAAATCTT
 TGCCATCGCAGTCCTGGCCGGCAGTGTGGTAACCACGGCCACAGCAGCCTGCTGAACCTGAAGTCCATG
 GTGGAGGCCATCACACAGAACTCCATCCTGTCTTTGTGGGCTACGGCTGCTACTGCGGGCTGGGG
 GACGCGGCCATCCCATGGATGAGGTAGACTGGTGCTGCCATGCCACGACTGTTGCTATGAGAAGCTCTT
 TGAGCAGGGCTGCCGCCCTACGTGGACCACTATGACCACAGGATCGAGAATGGCACCATGATTGTCTGC
 ACTGAGCTCAATGAGACGGAGTGTGACAAGCAGACATGCGAGTGTGACAAGAGCCTGACTCTGTGCCTCA
 AGGATCACCCATACAGGAACAAGTACCGAGGCTACTTCAACGTCTACTGCCAGGGCCCCACACCCAACTG
 CAGCATCTATGACCCGTACCCAGAGGAAGTACCTGTGGGCATGGCTCCCTGCGACCCCTGTCTCAACC

ACGCGTACGCGGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR218100 protein sequence
 Red=Cloning site Green=Tags(s)

MADGAQANPKGFRKKALVKHSTGRKSPSLRASPSKTSRSSLGMKKFFAIIVLAGSVVTTAHSLLNLKSM
 VEAITHRNSILSFVGYGCYGLGRRGHPMDEVWCCHAHDCCYEKLFQGCRCRPPYVDHYDHRIENGTMIVC
 TELNETCDKQTCEDKSLTLCLKDHPYRNKYRGYFNVYCOGPTPNCSIYDPYPEEVTGCHGLPATPVST

TRTRPLEQKLISEEDLAANDILDYKDDDDKV



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Restriction Sites: Sgfl-MluI

Cloning Scheme:



ACCN: NM_012045

ORF Size: 633 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_012045.4](#), [NP_036175.2](#)

RefSeq Size: 2437 bp

RefSeq ORF: 633 bp

Locus ID: 26971

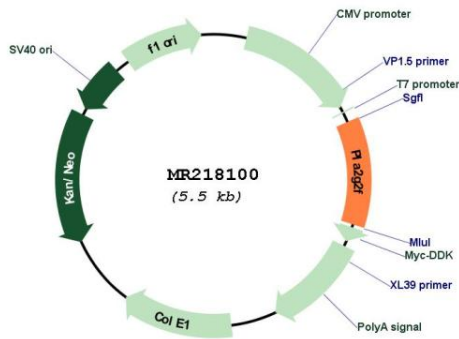
UniProt ID: [Q9QZT4](#)

Cytogenetics: 4 D3

MW: 23.3 kDa

Gene Summary: May play a role in lipid mediator production in inflammatory conditions, by providing arachidonic acid to downstream cyclooxygenases and lipoxygenases. Phospholipase A2, which catalyzes the calcium-dependent hydrolysis of the 2-acyl groups in 3-sn-phosphoglycerides (PubMed:10531313). Hydrolyzes phosphatidylethanolamine more efficiently than phosphatidylcholine, with only a modest preference for arachidonic acid versus linoelic acid at the sn-2 position. Comparable activity toward 1-palmitoyl-2-oleoyl-phosphatidylserine vesicles to that toward 1-palmitoyl-2-oleoyl-phosphatidylglycerol (PubMed:11877435). Prefers phosphatidylglycerol compared to phosphatidylcholine (PubMed:10531313).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR218100